

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

1. (Currently Amended) An electrode structure for attachment to a more extensive measuring structure, in order to measure electrical responses from the human body, ~~which the electrode structure includes a conductive electrode, wherein comprising:~~

~~—the electrode is shaped to be thin in the thickness direction of the electrode structure, and~~

~~—the electrode structure is equipped with a hole and the electrode is located at the edge of the hole, in such a way that its longitudinal axis is essentially parallel to the plane of the measurement subject~~

a inner surface to contact with a measurement subject;

an outer surface opposed a predetermined distance to the inner surface;

a peripheral surface connecting the inner surface and the outer surface;

a central opening in the inner surface extending through the outer surface;

an opening in the peripheral surface extending though the electrode structure to meet the central opening; and

an electrode fitted in the opening in the peripheral surface, the electrode having a measuring lead, an electrode pellet and a conductor connecting the measuring lead and the electrode pellet, an end of the electrode pellet being positioned where the opening in peripheral surface meets the central opening and a portion of the measuring lead

extending beyond the peripheral surface.

2. (Previously Presented) The electrode structure according to Claim 1, wherein the electrode is formed from silver/silver-chloride (Ag-AgCl), in order to form electrically stable interfaces between the measurement subject and the measuring electronics.

3. (Currently Amended) The electrode structure according to Claim 1 ~~or 2~~, wherein

a thickness of the electrode is thinner than 5 mm and most preferably thinner than 2 mm structure anywhere between the inner surface and the outer surface is less than 5mm.

4. (Currently Amended) The electrode structure according to Claim 1, wherein ~~the electrode structure is attached to the measuring structure using a two part snap fit mechanism~~ outer surface is configured to receive a locking piece and the electrode structure attaches to the more extensive measuring structure via the locking piece.

5. (Currently Amended) The electrode structure according to Claim ~~1~~ 2, wherein ~~the electrode is connected to the measuring lead with the aid of a wire of conductor connecting the measuring lead and the electrode pellet is made of pure silver (Ag).~~

6. (Currently Amended) The electrode structure according to Claim 1, wherein

~~the electrode structure is equipped with a hole and the electrode is located at the edge of the hole, and that the diameter of the hole is at least 2 mm, most preferably at least 4 mm~~ a diameter of the central opening is in a range of between 2 mm and 4 mm.

7. (Currently Amended) The electrode structure according to Claim 1, wherein the electrode pellet is cylindrical in shape and ~~the longitudinal axis of an axial direction in which~~ the electrode pellet extends is essentially parallel to ~~the~~ a plane of the measurement a subject being measured.

8. (Currently Amended) The electrode structure according to Claim ~~1~~ 4, wherein ~~the electrode structure is formed of body part, in which~~ outer surface has a curved opening is formed, and a the locking part, which piece locks into the curved opening ~~in the body part.~~

9. (Currently Amended) The electrode structure according to Claim ~~1~~ 7, wherein

~~the electrode is of a small size, so that~~ pellet has a cross-section along any plane ~~whatever of the electrode has~~ perpendicular to the axial direction in which the electrode pellet extends with a surface area of that is less than 15 mm², most preferably of less than 4 mm².

10. (Currently Amended) The electrode structure according to Claim 1, wherein

the electrode pellet is ~~manufactured by sintering from a sintered~~ silver/silver-chloride mass (Ag-AgCl).

11. (Canceled)

12. (Currently Amended) A measuring cap for measuring electrical responses from the human body, which measuring cap ~~includes~~ comprises:

one or more electrode structures ~~and electrical~~ according to claim 1, wherein
the measuring leads ~~connected to them for transmitting the~~ transmit
measurement results to measuring equipment, ~~wherein~~
~~the electrode structures are according to Claim 1.~~

13. (Currently Amended) The measuring cap according to Claim 12, wherein
the measuring leads are wound into a tight, ~~preferably~~ spiral bundle, in order to
reduce interference.

14. (Currently Amended) The measuring cap according to Claim 12, wherein
~~the earth~~ measuring leads include ground and reference electrode leads that are
wound tightly to each other, ~~in order~~ to reduce interference.

15. (Currently Amended) The measuring cap according to Claim 12, wherein
the measuring leads ~~are~~ run from the ~~electrodes~~ electrode structures towards ~~the a~~
front of the cap, ~~in order~~ to reduce interference.

Claim 16 (Canceled)

17. (New) The electrode structure according to Claim 2, wherein
a thickness of the electrode structure anywhere between the inner surface and the
outer surface is less than 5mm.

18. (New) The electrode structure according to Claim 3, wherein
the thickness of the electrode structure anywhere between the inner surface and
the outer surface is less than 2 mm.

19. (New) The electrode structure according to Claim 9, wherein
the cross-section of the electrode pellet is less than 4 mm^2 .